

IN THE CLAIMS

1-4. (Cancelled)

Claim 5 has been amended as follows:

5. (Currently Amended) A method for correcting pixels of an x-ray image data set, comprising the steps of:

acquiring ~~[[an]]~~ a current x-ray exposure of an examination subject with an x-ray apparatus using a reusable storage film plate as an x-ray detector, said storage film plate comprising a storage luminophore layer having a sensitivity that changes dependent on an accumulated x-ray dose to which said storage luminophore ~~[[is]]~~ has been exposed in said current x-ray exposure and in said x-ray exposures using said storage plate preceeding said current exposure;

reading out said storage film plate with a readout device after acquiring x-ray exposure;

from the readout of said storage film plate, generating an x-ray image data set corresponding to said x-ray exposure, said x-ray image data set comprising a plurality of data set pixels respectively corresponding to pixels of said current x-ray exposure; and

correcting each of said data set pixels with a correction value associated with the pixel corresponding thereto in the current x-ray exposure, by adapting each correction value dependent on ~~[[an]]~~ accumulated x-ray dose to which a portion of the storage film containing the pixel corresponding to the data set pixel was exposed, ~~before acquiring said exposure of the subject in said current x-ray exposure and in said x-ray exposures using said storage plate preceeding said current exposure.~~

6. (Previously Presented) A method as claimed in 5, comprising correcting pixels $RB_{i,j}^m$ of the m-th x-ray image data set according to the following:

$$B_{i,j}^m = a * RB_{i,j}^m / EB_{i,j}^m,$$

wherein

a is a first scaling factor,

$RB_{i,j}^m$ is the signal of the pixel i, j of the m -th x-ray image data set,

$EB_{i,j}^m$ is the correction value for the pixel i, j of the m -th x-ray image data set and

$B_{i,j}^m$ is the signal of the pixel i, j of the m -th corrected x-ray image data set.

Claim 7 has been amended as follows:

7. (Currently Amended) A method as claimed in claim 6, comprising determining the accumulated x-ray dose $D_{i,j}^m$ for a region of the storage film plate that is associated with the pixel i, j of the x-ray image data set according to the following relation for the m -th x-ray image data set:

$$D_{i,j}^m = \sum_{n=1}^{m-1} b * B_{i,j}^n,$$

wherein b is a second scaling factor.

8. (Previously Presented) A method as claimed in claim 7, comprising determining the correction value $EB_{i,j}^m$ for the pixel i, j of the m -th x-ray image data set according to the following relation:

$$EB_{i,j}^m = EB_{i,j}^0 - s * \left(\sum_{n=1}^{m-1} b * B_{i,j}^n \right),$$

wherein s is a constant and $EB_{i,j}^0$ is the correction value that is associated with the storage film without applied x-ray dose.